

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1. (Original) A connecting structure of a coaxial cable and a coaxial connector for electrically and mechanically connecting said coaxial cable and said coaxial connector, said connecting structure comprising:

 a braided conductor exposed on an end of said coaxial cable;

 a metal tape conductor inside said braided conductor on said coaxial cable;

 connecting conductor portions formed continuously on an end of a shell of said coaxial connector, said connecting conductor portions being inserted into a space between said braided conductor and said metal tape conductor; and

 a caulked, cylindrical sleeve having a crimp height H_1 , said sleeve formed by jointing two opposing almost semi-circular members, an outside contour of each said almost semi-circular member having a radius R_1 so that said radius R_1 and said crimp height H_1 satisfy the following Equations (1) and (2), respectively:

$$(1) \quad R_1 = P_1 \times (D + 2 \times T_1) \text{ and}$$

$$(2) \quad H_1 = P_2 \times R_1$$

 where D is an outside diameter of said coaxial cable, T_1 is a plate thickness of said sleeve, P_1 is a numerical value set within the range from 0.45 to 0.48, and P_2 is a numerical value set within the range from 2.02 to 2.12.

2. (Original) The connecting structure of a coaxial cable and a coaxial connector according to Claim 1, further comprising:

 protruding strips formed on an outer circumference of said caulked sleeve and

 a joint portion between said almost semi-circular member and said protruding strips; wherein

 an outside contour of a cross section of said joint portion connects an outside contour of a cross section of said protruding strips to an outside contour of a cross section of said almost semi-circular member;

said outside contour of said cross section of said joint portion has a curvature radius R2 and said outside contour of the cross section of said protruding strips has a height H2 in a direction of said crimp height H1, said curvature radius R2 and said height H2 satisfy the following Equations (3) and (4), respectively:

$$(3) \quad R2 = P3 \times T1 \text{ and}$$

$$(4) \quad H2 = P4 \times R1$$

where P3 is a numerical value set within the range from 1.8 to 2.2 and P4 is a numerical value set within the range from 1.5 to 2.0.

3. (Original) A connecting structure of a coaxial cable and a coaxial connector for electrically and mechanically connecting said coaxial cable and said coaxial connector, said connecting structure comprising:

a braided conductor exposed on an end of said coaxial cable;

a dielectric material inside said braided conductor on said coaxial cable;

connecting conductor portions formed continuously on an end of a shell of said coaxial connector, said connecting conductor portions being inserted into a space between said braided conductor and said dielectric material; and

a caulked, cylindrical sleeve having a crimp height H1, said sleeve formed by jointing two opposing almost semi-circular members, an outside contour of each said almost semi-circular member having a radius R1 so that said radius R1 and said crimp height H1 satisfy the following Equations (1) and (2), respectively:

$$(1) \quad R1 = P1 \times (D + 2 \times T1) \text{ and}$$

$$(2) \quad H1 = P2 \times R1$$

where D is an outside diameter of said coaxial cable, T1 is a plate thickness of said sleeve, P1 is a numerical value set within the range from 0.45 to 0.48, and P2 is a numerical value set within the range from 2.02 to 2.12.

4. (Original) The connecting structure of a coaxial cable and a coaxial connector according to Claim 3, further comprising:

protruding strips formed on an outer circumference of said caulked sleeve and a joint portion between said almost semi-circular member and said protruding strips; wherein

an outside contour of a cross section of said joint portion connects an outside contour of a cross section of said protruding strips to an outside contour of a cross section of said almost semi-circular member;

said outside contour of said cross section of said joint portion has a curvature radius R2 and said outside contour of the cross section of said protruding strips has a height H2 in a direction of said crimp height H1, said curvature radius R2 and said height H2 satisfy the following Equations (3) and (4), respectively:

$$(3) \quad R2 = P3 \times T1 \text{ and}$$

$$(4) \quad H2 = P4 \times R1$$

where P3 is a numerical value set within the range from 1.8 to 2.2 and P4 is a numerical value set within the range from 1.5 to 2.0.

5. (Currently amended) A method for forming a connecting structure of a coaxial cable and a coaxial connector for electrically and mechanically connecting a coaxial cable and a coaxial connector, said method comprising:

allowing a braided conductor to be exposed from an end of said coaxial cable; inserting connecting conductor portions formed continuously from an end of a shell of said coaxial connector into a space between said braided conductor and a metal tape conductor inside said braided conductor;

caulking a cylindrical sleeve having a crimp height H1, said step of caulking said sleeve comprising jointing two opposing almost semi-circular members, each almost semi-circular member having a radius R1, said radius R1 and said crimp height H1 satisfying the following Equations (1) and (2), respectively:

$$(1) \quad R1 = P1 \leq (D + 2 \times T1)$$

$$(2) \quad H1 = P2 \leq R1$$

where D is an outside diameter of said coaxial cable, T1 is a plate thickness of said sleeve, P1 is a numerical value set within the range from 0.45 to 0.48, and P2 is a numerical value set within the range from 2.02 to 2.12;

said caulked sleeve further comprises protruding strips formed on an outer circumference of said caulked sleeve and a joint portion between said almost semi-circular member and said protruding strips;

an outside contour of a cross section of said joint portion connects an outside contour of a cross section of said protruding strips to an outside contour of a cross section of said almost semi-circular member; and

said outside contour of said cross section of said joint portion has a curvature radius R2 and said outside contour of the cross section of said protruding strips has a height H2 in a direction of said crimp height H1, said curvature radius R2 and said height H2 satisfy the following Equations (3) and (4), respectively:

$$(3) \quad R2 = P3 \times T1 \text{ and}$$

$$(4) \quad H2 = P4 \times R1$$

where P3 is a numerical value set within the range from 1.8 to 2.2 and P4 is a numerical value set within the range from 1.5 to 2.0.

6. (Currently amended) A method for forming a connecting structure of a coaxial cable and a coaxial connector for electrically and mechanically connecting a coaxial cable and a coaxial connector, said method comprising:

allowing a braided conductor to be exposed from an end of said coaxial cable;

inserting connecting conductor portions formed continuously from an end of a shell of said coaxial connector into a space between said braided conductor and a dielectric material inside said braided conductor;

caulking a cylindrical sleeve having a crimp height H1, said step of caulking said sleeve comprising jointing two opposing almost semi-circular members, each almost semi-circular member having a radius R1, said radius R1 and said crimp height H1 satisfying the following Equations (1) and (2), respectively:

$$(1) \quad R1 = P1 \leq (D + 2 \leq T1)$$

$$(2) \quad H1 = P2 \leq R1$$

where D is an outside diameter of said coaxial cable, T1 is a plate thickness of said sleeve, P1 is a numerical value set within the range from 0.45 to 0.48, and P2 is a numerical value set within the range from 2.02 to 2.12;

said caulked sleeve further comprises protruding strips formed on an outer circumference of said caulked sleeve and a joint portion between said almost semi-circular member and said protruding strips;

an outside contour of a cross section of said joint portion connects an outside contour of a cross section of said protruding strips to an outside contour of a cross section of said almost semi-circular member; and

said outside contour of said cross section of said joint portion has a curvature radius R2 and said outside contour of the cross section of said protruding strips has a height H2 in a direction of said crimp height H1, said curvature radius R2 and said height H2 satisfy the following Equations (3) and (4), respectively:

$$(3) \quad R2 = P3 \times T1 \text{ and}$$

$$(4) \quad H2 = P4 \times R1$$

where P3 is a numerical value set within the range from 1.8 to 2.2 and P4 is a numerical value set within the range from 1.5 to 2.0.